

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604819A - LOSAT**

PROJECT

**046**

COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
046	LINE-OF-SIGHT ANTI-TANK (LOSAT) MISSILE	10603	30488	22628	0	0	0	0	0	113856

**A. Mission Description and Budget Item Justification:** The LOSAT weapon system consists of a kinetic energy (KE) missile launcher mounted on a heavy High Mobility Multi-purpose Wheeled Vehicle (HMMWV) chassis. Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides light forces needed lethality and the foundation for the Future Force Kinetic Energy Missile integration. This program focuses on the integration of the LOSAT weapon system into a light, early deployable configuration in order to help remedy the urgent need for the early entry force lethality shortfall against heavy armor in support of the Army Transformation. LOSAT offers a highly mobile, near-term, advanced capability for overwhelming armor destruction with a high rate of fire, increased range, and increased force survivability. LOSAT, deployed in the early entry force, will provide the decisive edge to win swiftly with minimum casualties and provides an assault support weapon capability. LOSAT is strategically and tactically deployable, giving Commanders and decision makers greater flexibility. Once in theater, LOSAT is extremely mobile and can be dropped or sling loaded under CH-47 and UH-60L aircraft. The performance of this hypervelocity kinetic energy missile (velocity of a mile per second) is not affected by the proliferation of emerging threat active protective systems and enhanced reactive armors, which are both rapidly becoming available on the global marketplace. LOSAT was initiated as a DoD-approved Advanced Concept Technology Demonstration (ACTD) program in FY 1998 to position the technology for future acquisition decisions; demonstrate subsystem capabilities in flight tests and dirty battlefield environments; evaluate the utility of the LOSAT technology for the early entry forces; demonstrate an integrated HMMWV-based LOSAT system in-flight tests and advanced war fighting experiments; and evaluate affordability issues. The work in this program element is consistent with the Army Science and Technology Master Plan, and the Army Modernization Plan. In December 1999, the Army and OSD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation by adding additional design activities, reducing risk, completing system qualification testing, and adding additional Operational tests to support transition to limited production of the LOSAT Weapon System, with entry into Low Rate Initial Production (LRIP) starting in FY 2004. This system supports the Current to Future Force transition path of the Transformation Campaign Plan (TCP).

<b>Accomplishments/Planned Program</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>
FY03 Finalize Fire Unit Software Enhancements, Fire Unit BIT/BITE software, and perform System Level Certification.	742	0	0
FY03 Fabrication of Missiles with Enhanced Design and perform developmental/operational, tests and evaluations.	1135	0	0
FY03-04 Fabrication of Enhanced Design Prototype Fire Units/Live Fire Unit, and refurbishment of Fire Units.	1474	7240	0
FY03-05 Perform full, Developmental/Operational Tests and Evaluations.	3189	8280	12833

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## Accomplishments/Planned Program B(continued)

	FY 2003	FY 2004	FY 2005
FY03-05 Continue Supportability Analysis, finalize Logistics Management Information, and perform Supportability Demonstration.	1436	5738	250
FY03-05 Deliver Enhanced Training Simulators and conduct Soldier Training for operational tests.	891	3892	2920
FY03-05 Perform Live Fire Test and Evaluation (LFTE).	1736	4551	6625
SMALL BUSINESS INNOVATIVE RESEARCH/SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAMS	0	787	0
Totals	10603	30488	22628

## B. Program Change Summary

	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	13597	30809	22610
Current Budget (FY 2005 PB)	10603	30488	22628
Total Adjustments	-2994	-321	18
Congressional program reductions		-290	
Congressional rescissions			
Congressional increases			
Reprogrammings	-2994	-31	
SBIR/STTR Transfer			
Adjustments to Budget Years			18

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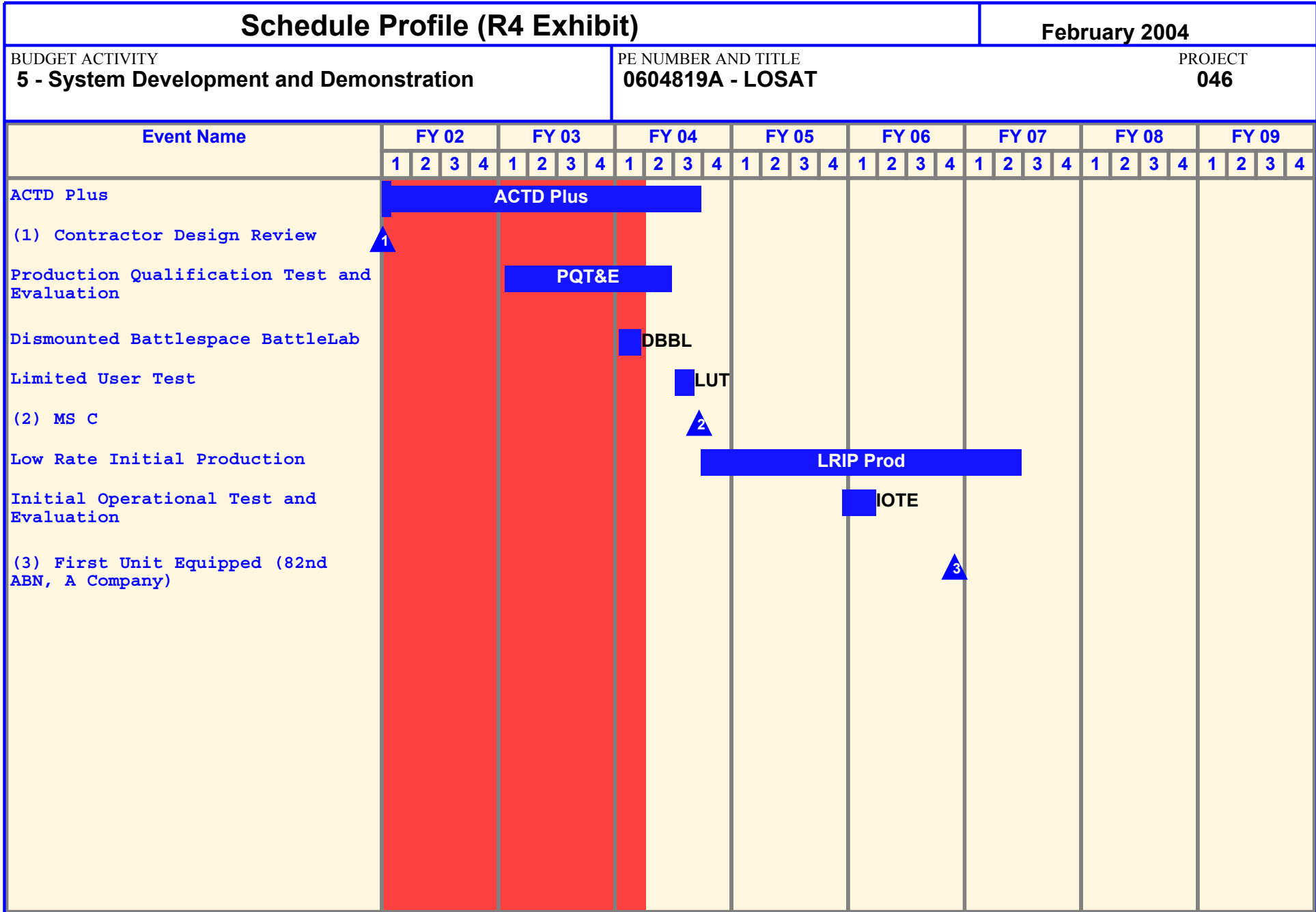
## C. Other Program Funding Summary

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
H09100 LOSAT	0	42911	86321	70983	4351	0	0	0	204566
0603654A Line-of-Sight Technology Demo	29931	8739	0	0	0	0	0	0	111200

**D. Acquisition Strategy:** The Line-of-Sight Anti-Tank additional development and qualification effort to support the Current to Future Forces is being conducted in conjunction with the on-going ACTD effort. The ACTD contract awarded in April 1998 was modified in December 2000 to include the System Development and Demonstration (SDD) effort. A Milestone Decision Review will be conducted in FY04 to assess design maturity and authorize entry into LRIP.

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604819A - LOSAT</b>					PROJECT <b>046</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SDD Contract	CPIF	LMMFC, Dallas, TX	34157	0	2Q	14000	2-3Q	2000	1Q	0	50157	0
b . Live Fire Hardware	CPFF	Alliant Tech	1629	0		0		0		0	1629	0
c . RDEC Support	TBD	Huntsville, AL	5837	2043	2-4Q	3000	1-4Q	2804	1-4Q	0	13684	0
Subtotal:			41623	2043		17000		4804		0	65470	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House Support		Huntsville, AL	1162	583	2-4Q	2767	1-4Q	1086	1-4Q	0	5598	0
b . Funct Govt Spt		Huntsville, AL	2768	896	2-4Q	1030	1-4Q	795	1-4Q	0	5489	0
c . MISC		Various	58	0		0		0		0	58	0
d . OGA		Various	188	180	2-4Q	480	1-4Q	229	1-4Q	0	1077	0
Subtotal:			4176	1659		4277		2110		0	12222	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Range Support		Various Sites	788	3680	1-4Q	2255	1-4Q	10282	1-4Q	0	17005	0
b . Other Test		Various Sites	1556	2598	1-4Q	6081	1-4Q	4654	1-4Q	0	14889	0
c . GFE		Smith Industries, Grand Rapid, Minnesota	366	0		0		0		0	366	0
Subtotal:			2710	6278		8336		14936		0	32260	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering Tech Asst	T&M	Huntsville, AL	1628	623	1-4Q	875	1-4Q	778	1-4Q	0	3904	0
Subtotal:			1628	623		875		778		0	3904	0
Project Total Cost:			50137	10603		30488		22628		0	113856	0



Schedule Detail (R4a Exhibit)						February 2004	
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<u><b>Schedule Detail</b></u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Critical Design Review							
Begin Missile and Fire Unit Assembly							
Complete Component Level Qualifications	2Q						
Begin System Qualification and Flight Tests	2Q						
Begin User Experimentation	4Q						
Limited User Testing		3Q					
Complete System Qualification and Flight Tests		2Q					
Milestone C		3Q					
Award LRIP Contract		3Q					
ACTD Hand Receipt (Fire Units)		4Q					
IOTE			4Q	1Q			
Begin Fielding				4Q			
First Unit Equiped (FUE)				4Q			